Preface

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Editors

Increasingly, the concept of “Personalized Medicine” is being emphasized as the future trend in clinical practice, particularly in the field of Oncology. While the “triple-omics” has been at the forefront of this endeavor, the editors of this issue believe molecular imaging with PET will play the pivotal role in realization of personalized approach and management of a wide variety of cancers. It is therefore very timely to examine and forecast evolving and potential applications of this powerful modality and explore the various decision-making domains, where PET could play a critical role in such settings.^{1–5} While over the years some efforts have been made to describe this rapidly evolving trend in medicine, as far as we could determine, there is no systematic and comprehensive review of this subject in the literature that may serve as a guide to the practicing clinicians. Therefore, in this issue of *PET Clinics*, we have made an attempt to introduce the ongoing research and clinical initiatives for developing PET-based personalized management models in various malignancies. The issue includes 13 reviews, which are drafted by a group of highly qualified colleagues who are authorities in their respective disciplines. The first introductory article in this issue reviews the current state of this field and future prospects for this very promising concept with special reference to the contents and points made by the contributing authors in the subsequent communications.

The topics covered in the present issue include the major neoplastic disorders, such as lymphoma, head and neck tumors, lung carcinomas, and gastrointestinal malignancies, with a separate discourse on gastroenteropancreatic neuroendocrine tumors. We should emphasize that PET imaging has played and continues to play an important role in the clinical decision-making process in these cancers. However, we felt that systematic exploration of the role of PET in these malignancies was lacking in the literature and there was a clear need to describe the evolving role of PET as a tool for personalized disease management. The role of molecular imaging for individualized management of certain disease conditions, such as gynecologic malignancies, breast carcinomas, bone and soft tissue tumors, skeletal metastases, and inflammatory disorders, is somewhat futuristic at this junction. Therefore, in the respective reviews related to these disorders, the ongoing trends have been explored, and the authors have forecasted the potential trends. Finally, the last two scientific communications in this issue, PET/CT-guided metabolic biopsies and PET-CT-based radiation therapy planning, respectively, have emphasized the critical role of molecular imaging in individualizing the intended treatments.

The editors believe and hope this issue will generate a great deal of interest and enthusiasm about the evolving applications of PET, and this could enhance and revolutionize the concept of Personalized Medicine in the future.

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